IN THE SPECIFICATION

Please replace the paragraph beginning at page 4, line 4, with:

The other way, very disclosed in the scientific literature, is the determination of thermal diffusivity stemming from the thermal conductivity $\underline{\lambda}$, the density $\underline{\rho}$, and the specific heat c_p at a constant pressure of the material obtained by independent methods. Thermal conductivity $\underline{\lambda}$ is measured by definition under stationary heat flow conditions. Although it is possible to measure density $\underline{\rho}$ under different pressure and temperature conditions, the current methods only allow maximum cooling rates of about 30 to 40 K/min. The calorimeters to determine specific heat c_p solely manage cooling rates of only 40 K/min in the best of cases and at very low pressures compared to that of industrial processes.

Please replace the paragraph beginning at page 11, line 13, with:

This device now integrated with the plate of the material to be analyzed is used to carry out an optional heating process, which allows to obtain the information needed to calculate the thermal diffusivity of the material during the heating, similar to that used in the ~~heating~~ cooling, if so required. For that, the measurement cell is set to the desired temperature with the help of conventional electrical cartridges (not represented in the figures) installed in the perforations 28 of Fig. 2. Or by flow of an attemperator liquid through the perforations 26, warmed by an attemperator not represented in the figures. Once the stationary stage is reached, the recording of signals is activated and the removable Unit of temperature sensors 11 or 15 is quickly introduced with the temperature sensors embedded on the plate of the material to be analyzed, and the measurement cell is closed.

Please replace the paragraph beginning on page 14, line 10 with:

$\underline{\vartheta}_{i,j}$= Temperature for position X_i in time j (central temperature of the triad)

Please replace the paragraph beginning on page 14, line 11 with:

$\underline{\vartheta}_{i,j}+1$= Temperature for position X_i in time $j+t$ (central temperature of the triad)

Please replace the paragraph beginning on page 14, line 12 with:

$\underline{\vartheta}_{i+1,j}$= Temperature for position X_{i+1} in time j (temperature for the point of the triad farthest away from the cavity's wall)

Please replace the paragraph beginning on page 14, line 13 with:

$\underline{\vartheta}_{i-1,j}$= Temperature for position X_{i-1} in time j (temperature for the point of the triad closest to the cavity's wall)

Respectfully submitted,

William R. Evans
c/o Ladas & Parry LLP
26 West 61st Street
New York, New York 10023
Reg. No. 25858
Tel. No. (212) 708-1930